

09/147693

# WEST Search History

DATE: Tuesday, May 27, 2003

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ</i>			
L8	l3 same l4 same l5 same L7	83	L8
L7	mutat\$	62110	L7
L6	l3 with l4 with l5	351	L6
L5	temperature	2958714	L5
L4	repress\$	23191	L4
L3	l1 or L2	109026	L3
L2	phage	29556	L2
L1	lambda	96172	L1

END OF SEARCH HISTORY

**WEST****Print Selection**

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Select?	Document ID	Section(s)	Page(s)	# Pages to print	Database
<input checked="" type="checkbox"/>	5789188	all	all	27	USPT,PGPB,JPAB,EPAB,DWPI
<input checked="" type="checkbox"/>	4637980	all	all	9	USPT,PGPB,JPAB,EPAB,DWPI

**Building**      **Room**      **Printer**

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09/147 693  
A# 30

=> s phage  
L1 128436 PHAGE

=> s lambda  
L2 248839 LAMBDA

=> s l1 or l2 s repress?  
MISSING OPERATOR L2 S REPRESS?  
The search profile that was entered contains terms or  
nested terms that are not separated by a logical operator.

=> s temperature  
L3 1761590 TEMPERATURE

=> s s repress  
<-----User Break----->

SEARCH ENDED BY USER  
4 FILES SEARCHED...  
SEARCH ENDED BY USER

=> s repress  
L4 14802 REPRESS

=> s l1 or l2

L5 349570 L1 OR L2

=> s mutat?  
L6 988137 MUTAT?

=> s l3 and l4 and l5 and l6  
L7 2 L3 AND L4 AND L5 AND L6

=> s l3 and l5 and l6  
L8 2251 L3 AND L5 AND L6

=> s l4 and l5 and l6  
L9 76 L4 AND L5 AND L6

=> d l7 ibib abs 1-2

L7 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL  
ABSTRACTS INC.  
ACCESSION NUMBER: 2002:584887 BIOSIS  
DOCUMENT NUMBER: PREV200200584887  
TITLE: The regulation of hilA expression through the control of  
the negative regulator hilE.  
AUTHOR(S): Baxter, M. (1); Jones, B. D. (1)  
CORPORATE SOURCE: (1) University of Iowa, Iowa City, IA USA  
SOURCE: Abstracts of the General Meeting of the American Society  
for Microbiology, (2002) Vol. 102, pp. 70.  
<http://www.asmsa.org/mtgsrc/generalmeeting.htm>. print.  
Meeting Info.: 102nd General Meeting of the American  
Society for Microbiology Salt Lake City, UT, USA May 19-23,  
2002 American Society for Microbiology  
. ISSN: 1060-2011.

DOCUMENT TYPE: Conference  
LANGUAGE: English

AB Salmonella invasion of host cells is dependent on proteins encoded by  
Salmonella Pathogenicity Island 1 (SPI-1). These genes, which encode  
many  
of the secreted effector proteins as well as the structural components of  
the type III secretion needle, are tightly regulated by the bacteria.  
Activation of these genes is dependent on environmental signals such as  
low oxygen concentration, high osmolarity, \*\*\*temperature\*\*\* and  
midlog growth. The central transcriptional activator of these genes is  
hilA. Our studies have identified a repressor of hilA known as hilE. This  
gene, located in a novel region of the Salmonella genome has been shown  
to  
\*\*\*repress\*\*\* hilA expression and Salmonella invasion when it is  
overexpressed. A \*\*\*mutation\*\*\* in hilE leads to increased expression  
of hilA and Salmonella invasion as measured by B-galactosidase activity  
and in vitro HEP-2 invasion assay, respectively. Additional work has  
shown  
that hilE is a Salmonella specific gene requiring a Salmonella specific  
factor for its expression. Current efforts are aimed at understanding how

hilE exerts its effect on hilA expression and the signals that lead to the  
activation of hilE. Motifs found within hilE suggest that the protein is  
capable of binding to the hilA promoter thereby leading to the repression  
of hilA expression. This hypothesis is being investigated through the use  
of gel shift assays and challenge \*\*\*phage\*\*\* experiments. Activation  
of hilE appears to be a complicated process due to the presence of more  
than one activator that induces hilE expression. Future work will be aimed  
at identifying hilE regulators and characterizing how these regulators  
control the Salmonella invasive phenotype.

L7 ANSWER 2 OF 2 MEDLINE  
ACCESSION NUMBER: 77252442 MEDLINE  
DOCUMENT NUMBER: 77252442 PubMed ID: 330875  
TITLE: Effects of \*\*\*mutations\*\*\* in the immunity system of  
bacteriophage P1.  
AUTHOR: D'Ari R  
SOURCE: JOURNAL OF VIROLOGY, (1977 Sep) 23 (3) 467-75.  
Journal code: 0113724. ISSN: 0022-538X.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 197710  
ENTRY DATE: Entered STN: 19900314  
Last Updated on STN: 19900314  
Entered Medline: 19771020

AB A mutant of bacteriophage P1 that made an altered c1 repressor is  
described. The mutant c1 product had two configurations: in lysogens, at  
high temperatures, it permitted constitutive expression of the normally  
repressed DNA replication function ban and was insensitive to the action  
of ant, a product expressed by the virulent mutant P1 virs and by the  
heteroimmune \*\*\*phage\*\*\* P7 (formerly phiamp+) and normally able  
to  
overcome c1 repression; in mutant lysogens at low temperatures, the  
mutant  
repressor was apparently normal (able to \*\*\*repress\*\*\* ban and  
sensitive to ant action). Genetic studies of this mutant led to the  
isolation of a derivative that formed unstable lysogens. These studies  
suggested that the ban product was normally under c1 control; they further  
showed that ant overcame c1 repression by inactivating c1 rather than by  
creating a bypass of repressor activity.

=> d his

(FILE 'HOME' ENTERED AT 10:38:59 ON 27 MAY 2003)

FILE 'BIOSIS, EMBASE, MEDLINE, WPIDS, HCAPLUS' ENTERED  
AT 10:39:09 ON 27  
MAY 2003

L1 128436 S PHAGE  
L2 248839 S LAMBDA  
L3 1761590 S TEMPERATURE  
L4 14802 S REPRESS  
L5 349570 S L1 OR L2  
L6 988137 S MUTAT?  
L7 2 S L3 AND L4 AND L5 AND L6  
L8 2251 S L3 AND L5 AND L6  
L9 76 S L4 AND L5 AND L6

=> dup rem l9  
PROCESSING COMPLETED FOR L9  
L10 40 DUP REM L9 (36 DUPLICATES REMOVED)

=> s l10 and py<1997  
1 FILES SEARCHED...  
3 FILES SEARCHED...  
4 FILES SEARCHED...  
L11 27 L10 AND PY<1997

=> s repress?  
L12 164198 REPRESS?

=> s temperature?  
L13 1896541 TEMPERATURE?

=> s l5 and l12 and l3 and l6  
L14 255 L5 AND L12 AND L3 AND L6

=> dup rem l14  
PROCESSING COMPLETED FOR L14  
L15 155 DUP REM L14 (100 DUPLICATES REMOVED)

=> s l15 and py<1997

1 FILES SEARCHED...  
3 FILES SEARCHED...  
4 FILES SEARCHED...  
L16 131 L15 AND PY<1997

=> d l16 ibib abs 1-131

L16 ANSWER 1 OF 131 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1997:13123 BIOSIS  
DOCUMENT NUMBER: PREV199799312326

TITLE: A procedure for the prediction of \*\*\*temperature\*\*\*  
-sensitive mutants of a globular protein based solely on  
the amino acid sequence.

AUTHOR(S): Varadarajan, R. (1); Nagarajaram, H. A.; Ramakrishnan, C.

CORPORATE SOURCE: (1) Molecular Biophysics Unit, Indian Inst. Sci.,  
Bangalore

560 012 India

SOURCE: Proceedings of the National Academy of Sciences of the  
United States of America, (1996) Vol. 93, No. 24, pp.  
13908-13913.

ISSN: 0027-8424.

DOCUMENT TYPE: Article

LANGUAGE: English

AB \*\*\*Temperature\*\*\* -sensitive (Ts) mutants of a protein are an  
extremely

powerful tool for studying protein function in vivo and in cell culture.  
We have devised a method to predict those residues in a protein sequence  
that, when appropriately \*\*\*mutated\*\*\*, are most likely to give rise  
to a Ts phenotype. Since substitutions of buried hydrophobic residues  
often result in significant destabilization of the protein, our method  
predicts those residues in the sequence that are likely to be buried in  
the protein structure. We also indicate a set of amino acid substitutions,  
which should be made to generate a Ts mutant of the protein. This method  
requires only the protein sequence. No structural information or  
homologous sequence information is required. This method was applied to

a test data set of 30 nonhomologous protein structures from the Protein Data  
Bank. All of the residues predicted by the method to be gtoeq 95% buried  
were, in fact, buried in the protein crystal structure. In contrast, only  
50% of all hydrophobic residues in this data set were gtoeq 95% buried.  
This method successfully predicts several known Ts and partially active  
mutants of T4 lysozyme, \*\*\*lambda\*\*\* \*\*\*repressor\*\*\*, gene V  
protein, and staphylococcal nuclease. This method also correctly predicts  
residues that form part of the hydrophobic cores of \*\*\*lambda\*\*\*  
\*\*\*repressor\*\*\*, myoglobin, and cytochrome b562.

L16 ANSWER 2 OF 131 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1996:186808 BIOSIS  
DOCUMENT NUMBER: PREV199698742937

TITLE: C-terminal deletions can suppress \*\*\*temperature\*\*\*  
-sensitive \*\*\*mutations\*\*\* and change dominance in the  
\*\*\*phage\*\*\* Mu \*\*\*repressor\*\*\*.

AUTHOR(S): Vogel, Jodi L.; Geuskens, Vincent; Desmet, Lucie;  
Higgins,

N. Patrick (1); Toussaint, Ariane

CORPORATE SOURCE: (1) Dep. Biochemistry Molecular Genetics, Univ.  
Alabama,

861-A Bevell Biomedical Res. Build., Box 13, 845 19th St.  
South, Birmingham, AL 35294-2170 USA

SOURCE: Genetics, (1996) Vol. 142, No. 3, pp. 661-672.

ISSN: 0016-6731.

DOCUMENT TYPE: Article

LANGUAGE: English

AB \*\*\*Mutations\*\*\* in an N-terminal 70-amino acid domain of  
bacteriophage

Mu's \*\*\*repressor\*\*\* cause \*\*\*temperature\*\*\* -sensitive  
DNA-binding  
activity. Surprisingly, amber \*\*\*mutations\*\*\* can conditionally  
correct the heat-sensitive defect in three mutant forms of the

\*\*\*repressor\*\*\* gene, cts25 (D43-G), cts62 (R47-Q) and cts71  
(M28-I),

and in the appropriate bacterial host produce a heat-stable Sts phenotype  
(for survival of \*\*\*temperature\*\*\* shifts). Sts \*\*\*repressor\*\*\*  
mutants are heat sensitive when in supE or supF hosts and heat resistant  
when in Sup degree host. Mutants with an Sts phenotype have amber  
\*\*\*mutations\*\*\* at one of three codons, Q179, Q187, or Q190. The Sts  
phenotype relates to the \*\*\*repressor\*\*\* size: in Sup degree hosts sts  
\*\*\*repressors\*\*\* are shorter by seven, 10, or 18 amino acids compared

to  
\*\*\*repressors\*\*\* in supE or supF hosts. The truncated form of the  
sts62-I \*\*\*repressor\*\*\*, which lacks 18 residues (Q179-V196), binds  
Mu

operator DNA more stably at 42 degree in vitro compared to its full-length  
counter-part (cts62 \*\*\*repressor\*\*\*). In addition to influencing  
\*\*\*temperature\*\*\* sensitivity, the C-terminus appears to control the  
susceptibility to in vivo Clp proteolysis by influencing the multimeric  
structure of \*\*\*repressor\*\*\*.

L16 ANSWER 3 OF 131 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1996:66952 BIOSIS  
DOCUMENT NUMBER: PREV199698639087

TITLE: Regulation of the heat-shock response depends on divalent  
metal ions in an hflB mutant of Escherichia coli.

AUTHOR(S): Herman, Christophe; Lecat, Sandra; D'Ari, Richard;  
Boulloc,

Philippe (1)

CORPORATE SOURCE: (1) Inst. Genet. Microbiol., Univ. Paris-Sud,  
CNRS/URA

1354, Batiment 400, 91 405 Orsay Cedex France

SOURCE: Molecular Microbiology, (1995) Vol. 18, No. 2, pp.  
247-255.

ISSN: 0950-382X.

DOCUMENT TYPE: Article

LANGUAGE: English

AB HflB, also called FtsH, is an essential Escherichia coli protein involved  
in the proteolysis of the heat-shock regulator sigma-32 and of the  
\*\*\*phage\*\*\* regulator \*\*\*lambda\*\*\* -cII. The hflB1(Ts) allele  
(formerly called ftsH1) conferring \*\*\*temperature\*\*\* -sensitive growth  
at 42 degree C is suppressed by loss of the ferric-uptake  
\*\*\*repressor\*\*\* Fur and by anaerobic growth. We show here that  
suppression requires TonB-dependent Fe(II) transport in the hflB1(Ts) fur  
mutant during aerobic growth at 42 degree C and Feo-dependent Fe(II)  
transport during anaerobic growth at 42 degree C. \*\*\*Temperature\*\*\*  
-resistant growth of hflB1(Ts) strains is also observed at 42 degree C in  
the presence of a high concentration of Fe(II), Ni(II), Mn(II) or Co(II)  
salts, but not in the presence of Zn(II), Cd(II), Cu(II), Mg(II), Ca(II)  
or Cr(III) salts. However, neither Ni(II) nor a fur \*\*\*mutation\*\*\*  
permits growth in the complete absence of HflB. The heat-shock response,  
evaluated by an htpG::lacZ fusion, is overinduced in hflB1(Ts) strains at  
42 degree C because of stabilization of sigma-32. Growth in the presence  
of Ni(II) or in the absence of the Fur \*\*\*repressor\*\*\* abolishes this  
overinduction in the hflB1(Ts) strain, and, in the hflB1(Ts) fur mutant,  
sigma-32 is no longer stabilized at 42 degree C. These results reinforce  
the recent observation that HflB is a metalloprotease active against  
sigma-32 in vitro and suggest that it can associate functionally in vivo  
with Fe(II), Ni(II), Mn(II) and Co(II) ions.

L16 ANSWER 4 OF 131 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1995:297846 BIOSIS  
DOCUMENT NUMBER: PREV199598312146

TITLE: Control of lytic development in the Streptomyces temperate  
\*\*\*phage\*\*\* vphi-C31.

AUTHOR(S): Wilson, Stuart E.; Ingham, Colin J.; Hunter, Iain S.;  
Smith, Margaret C. M. (1)

CORPORATE SOURCE: (1) Dep. Genetics, Queens Med. Centre,  
University Park,

Nottingham NG7 2UH UK

SOURCE: Molecular Microbiology, (1995) Vol. 16, No. 1, pp.  
131-143.

ISSN: 0950-382X.

DOCUMENT TYPE: Article

LANGUAGE: English

AB The \*\*\*repressor\*\*\* gene, c, is required for maintenance of lysogeny  
in the Streptomyces \*\*\*phage\*\*\* vphi-C31. The c gene expresses three  
in-frame N-terminally different protein isoforms at least one of which is